REVERSIBLE ELECTRODEPOSITION DEVICES
AND ASSOCIATED ELECTROCHEMICAL MEDIA

ABSTRACT

The present invention is directed to a reversible electrodeposition device comprising: a first substrate having an electrically conductive material associated therewith; a second substrate having an electrically conductive material associated therewith; a nucleation layer at least partially covering at least one of the electrically conductive materials of the first and second substrates; an electrochemical medium contained within a chamber positioned between the first and second substrates which comprises: at least one solvent; an anodic electroactive material; and cathodic electroactive material; and compositions and/or concentrations associated with the electrochemical medium which enhances the electrochemical performance of the electrodeposition device.